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ABSTRACT

The Comprehensive Evaluation System (CES), a comprehensive computer program system designed for the implementation of statewide standards for all schools and school systems in Georgia, is described. The system, mandated by state reform legislation, was conceived as a set of standards ranging from legal adherence through standards of excellent performance, with specified procedures for applying the standards annually in every school and system in the state. At this time, only legal adherence is assessed. The CES was designed to manage data effectively and efficiently using dBASE IV through the following steps: (1) raw data entry; (2) assessment of individual standards and indicators; (3) establishment of databases of evaluation results; and (4) generation of reports at the school, district, or system level. Database files include the name, the code, the validation flag for each school or district, and various compliance flags for each indicator of legal adherence. The system is designed for ease of use and has performed well. Changes will be made as legal requirements change. Three figures illustrate the design of the system. (SLD)

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Using Microcomputers to Apply Statewide Standards for Schools and School Systems: Operational Details of the Current System

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I. Introduction

Comprehensive Evaluation System (CES) is a comprehensive computer program system designed for the implementation of statewide standards for all schools and school systems in Georgia as mandated by state reform legislation. The system was originally developed five years ago by the Evaluation and Assessment Laboratory of The University of Alabama and has undergone some changes due to different requirements from the state. CES was at first regarded as a set of standards ranging from basic legal adherence through standards of excellent performance with specified procedures for applying the standards annually in every school and school system within the state. At this time only the legal adherence standards are applied to schools and school systems. Application of the legal adherence standards requires the collection of massive amounts of data both in-house (within the Department of Education) and from the field (requiring trained evaluators to visit schools and school systems). Since the major task in the application of the legal adherence is data management, CES was designed to accomplish this feature effectively and efficiently. To achieve this, the structure of the system was considered carefully and designed using dBASE IV. As a result, CES is actually a set of computer programs and data files. We will introduce this system in several parts below.

II. Data Management of the System

The data management component of the system consists of raw data entry, assessment of individual standards and indicators;

establishment of databases of evaluation results, and generation of various kinds of reports at the school, the school system or district (we will use district henceforeward), and the state level.

The CES database files include the name, the code and the validation flag for each school or district plus various compliance flags under each indicator of legal adherence. We set up a master database to hold all the names, the codes and the validation flags. We also built two databases for all the indicators for both schools and districts respectively.

The indicators are standardized throughout the state. If a school or district meets the requirements of the state on one indicator, we use flag Y to show that this indicator is met, otherwise we use N. If an indicator is not applicale to the school or district, we use X. Thus, the Y's, the N's or the X's form the preliminary data.

The evaluation of a school or district goes like this: at the beginning of the evaluation if all the flags are Y's for a school, then the rating of the school will be 'In Compliance'; if the flags are not all Y's, the rating will not be given at this time; for a district, if all the district level indicators are met and all the schools in the district are 'In Compliance', then the district's rating will be 'In Compliance'; if one or more of the district level indicators are not met or at least one of the schools in the district is 'Not Rated', then the district will be 'Not Rated'. Thus, we can obtain the preliminary rating results and they are stored in the preliminary databases. Since the data

are collected through three channels: in-house, on-site visit and statement of compliance, the data are classified as in-house data (in-house) and non-in-house data(on-site visit and statement of compliance). For the preliminary databases, we use SINDP and DINDP for school and district filenames respectively.

After we obtain the preliminary evaluation results, the school or the district will have a period of time to correct problems identified on certain indicators. Thus, the flags on some indicators may need to be changed. To store this data, we set up separate databases for those flags. The data generated at this time are called current data or update data. The databases set up for the current data have the same structure as the preliminary data databases. The difference is only in the data the files contain. For example, on one indicator, a certain school might have an N in the preliminary databases, but in the update databases it may have a Y. The case is the same for a district. We use DINDU and SINDU as filenames for the databases for districts and schools, respectively.

The final evaluation of a school or a district is determined by the data in both the preliminary and the update databases.

For a school, if all the flags in the preliminary database are Y's, and if all the flags in the update database are Y's too, then the rating for this school will be 'In Compliance'; if one or more flags are N's on some indicators in the preliminary database but in the update database all the flags are Y's, then the rating for this school will be 'Compliance By Cap' (which means Compliance by

Corrective Action Plan). Otherwise the rating will be 'Not In Compliance'.

For a district, if all the district level indicators are met, (i.e., if all the flags in both the preliminary and the update databases are Y's), then the rating for this district will be 'In Compliance'; if all the district level indicators are met initially or by corrective action plan, and all the schools are rated either 'In Compliance' or 'Compliance By CAP', then the rating for this district will be 'Compliance By CAP'; otherwise the rating will be 'Not In Compliance'. The evaluation results will be stored in the update databases for later use.

To carry out the evaluation, many other auxiliary databases must be set up. But we will not introduce them here.

The ultimate results of the system are various kinds of reports at the school level, the district level and the state level. To accomplish this, many seperate programs were written.

The process of data management is outlined in Fig.1.

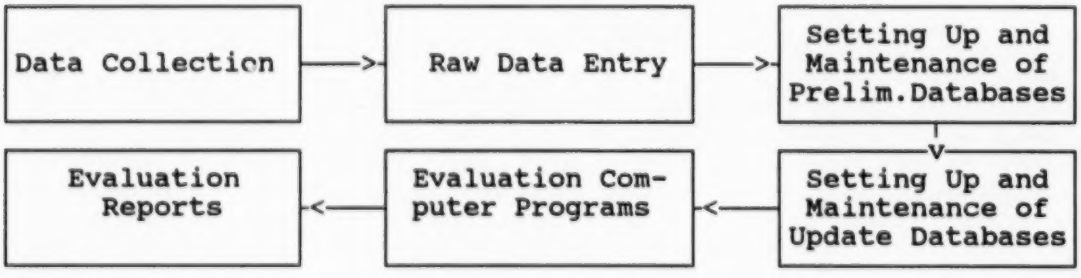
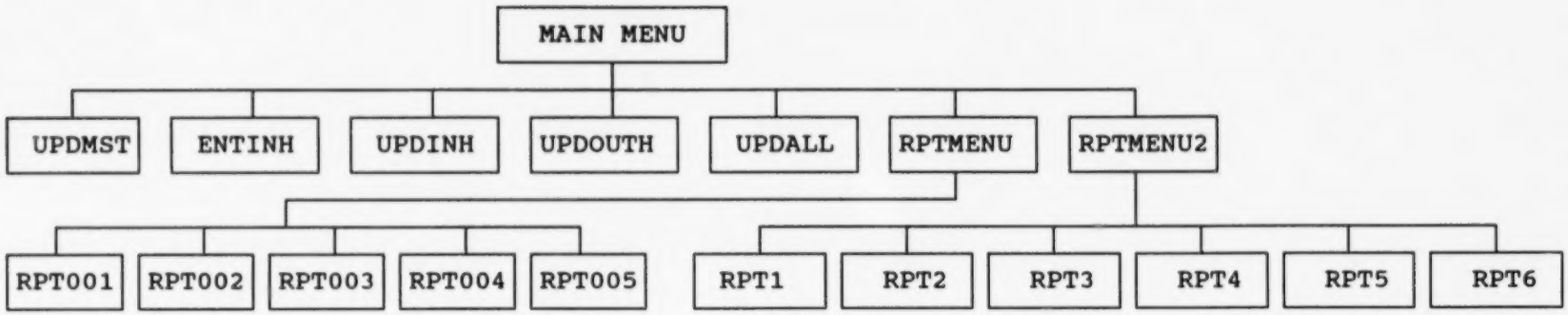


Fig.1.

III. The Structure of the Software

In terms of programs, the system has a hierarchical structure which consists of three levels as shown in Fig.2.


MAIN MENU
UPDMST
ENTINH
UPDINH
UPDOUTH
UPDALL
RPTMENU
RPTMENU2
RPT001
RPT002
RPT003
RPT004
RPT005
RPT1
RPT2
RPT3
RPT4
RPT5
RPT6

The first level, i.e., the highest one, is the main menu of the system, from which the user can choose the module that can perform the job chosen from those of the second level. The main menu is a program written in dBASE IV. The user can enter the second level from the first very easily. The jobs that the second level can do are displayed on the menu and the user presses a specific function key to enter the desired module. The user can leave the system and return to DOS from the main menu by pressing a specific function key.

The second level is made up of the following modules:

1. Update the data in the master database, (i.e., update the names or codes for both schools and districts). In addition, add a school or district's name and code into the master database (UPDMST).
2. Enter the in-house data into the in-house databases. These databases contain the preliminary and the update data for both schools and districts (ENTINH).
3. Update the data in the in-house database (UPDINH).
4. Update the data in the non-in-house database. This database contains the data for both schools and districts (UPDOUTH).
5. Update all the data in the databases (UPDALL).
6. Print various kinds of statistical and utility reports (RPTMENU).
7. Print preliminary, update and the final reports for schools and districts (RPTMENU2).

The third level, (i.e., the lowest one), contains only the

modules for printing the reports.

From the module RPTMENU the user can select the following reports:

1. Print current school or district status (RPT001);
2. Print statewide ratings statistics (RPT002);
3. Print list of school or district ratings (RPT003);
4. Print statewide indicator statistics (RPT004);
5. Print list of school or district which has some problems on one or more indicators (RPT005).

For the module RPTMENU2, the user can select the following reports:

1. Print school level preliminary report (RPT1);
2. Print school level update report (RPT2);
3. Print school level final report (RPT3);
4. Print district level preliminary report (RPT4);
5. Print district level update report (RPT5);
6. Print district level final report (RPT6).

One can't easily perceive the relationships between the modules at level 3 and the databases. Each module must use at least one database to perform its jobs. The relations can be seen from Fig.3.

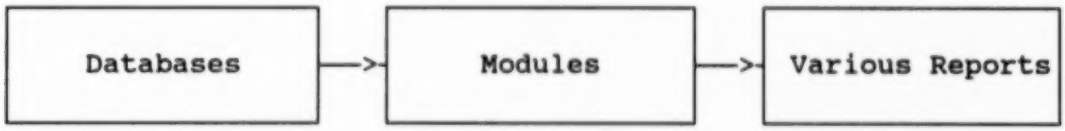


Fig.3.

All the modules have the characteristic that, once it has finished the job, it will automatically return to the upper level menu. When the user enters some information into the system, there is the possibility that, by mistake, wrong information will be entered. In this case, the system will tell the user what is wrong and what should be done. So, in a sense, the system is quite smart finding errors.

IV. Application of the System

After finishing every part of the system, we tested the programs both on a stand-alone IBM-PC and on a NOVELL network. It did a good job. To perform a certain job, the user only needs to press the specific function key which is shown either in the main menu or in the submenus, then the system will prompt him to follow some very simple instructions to accomplish the job. For example, to print a district update report, the user only needs to press F7 which is shown on the MAIN menu, then the computer will lead him to the report menu screen, from which he will find that to print the update report for a district he must press F5. Once F5 has been pressed, the computer will prompt the user to enter the district code, and get the printer ready. If a hard copy is not needed, the software will allow the user to write the report to a DOS file. He has only two choices, either having a hard copy or having the report stored. Whichever he chooses, the task will be performed automatically. After the job finishes, the computer will return to the upper level menu to wait for another job.

V. Concluding Remarks

As we said at the beginning, the system has undergone many changes. As the requirement for the application of the legal adherence standards enhances, more changes will be made in the system.